

EXHIBIT A

1. (Previously presented) A magnetic recording medium comprising a non-ferromagnetic substrate and a magnetic recording film formed on the substrate with an underlayer interposed therebetween, wherein the magnetic recording film comprises a plurality of Co alloy magnetic layers and an interlayer made of Ru disposed between adjacent magnetic layers, said interlayer having a thickness from 3Å to less than 10Å, wherein said magnetic layers are antiferromagnetically coupled to one another across said interlayer.

2-9. (Canceled).

10. (Previously presented) The magnetic recording medium according to Claim 1 wherein the underlayer is made of Cr or a Cr alloy.

11. (Previously presented) The magnetic recording medium according to Claim 1 wherein a seed layer made of a material having a B2 crystal structure is formed on the non-ferromagnetic substrate, and the magnetic recording film is formed on the seed layer with the underlayer interposed therebetween.

12. (Previously presented) The magnetic recording medium according to claim 11 wherein the material for the seed layer having the B2 structure is one member selected from the group consisting of NiAl, NiAlRu, NiAlNd, NiAlCr, NiAlPt and NiAlPd.

13. (Previously presented) The magnetic recording medium according to Claim 1 wherein the magnetic layers are made of a CoCrPt alloy or a CoCrTaPt alloy.
14. (Previously presented) The magnetic recording medium of claim 1 wherein said magnetic layers have a thickness on the order of about 110 angstroms.
15. (Previously presented) Magnetic recording medium of claim 1 wherein said interlayer increases the signal to noise ratio of said medium compared to the signal to noise ratio if said medium lacked said interlayer.
16. (Previously presented) A hard magnetic disk drive comprising the magnetic recording medium of claim 1.
17. (Previously Presented) Magnetic recording medium comprising:
a non-ferromagnetic substrate;
an underlayer formed over said substrate;
a lower ferromagnetic metallic layer comprising Co formed over said underlayer;
an interlayer comprising Ru formed over said lower ferromagnetic metallic layer,
said interlayer having a thickness from 3 Å to less than 10 Å; and
an upper ferromagnetic metallic layer comprising Co formed over said interlayer,
wherein said interlayer causes an antiferromagnetic exchange field H_{ex} exerted by the upper ferromagnetic metallic layer on the lower ferromagnetic metallic layer.

18. (Previously presented) Structure of claim 17 wherein said substrate comprises an aluminum alloy or glass.
19. (Previously presented) Structure of claim 17 wherein said substrate comprises an aluminum alloy covered with NiP and said underlayer comprises CrMo.
20. (Currently amended) Structure of claim 17 wherein said ~~alloy~~ upper ferromagnetic metallic layer comprises at least one material selected from the group consisting of Ta, Mo, W, Nb, V, Zr, B and Ti.
21. (Previously presented) A hard magnetic disk drive comprising the magnetic recording medium of claim 17.
22. (Previously Presented) Magnetic recording medium comprising:
a non-ferromagnetic substrate;
an underlayer formed over said substrate;
a lower ferromagnetic metallic layer comprising Co formed over said underlayer;
an interlayer comprising Ru formed over said lower ferromagnetic metallic layer,
said interlayer having a thickness from 3 Å to less than 10 Å; and
an upper ferromagnetic metallic layer comprising Co formed over said interlayer,
wherein said interlayer causes an antiferromagnetic interface exchange energy density J_{ex} .

23. (Previously presented) A hard magnetic disk drive comprising the magnetic recording medium of claim 22.